## CLAIMS

 Polyaminopyridines having a repetition structural unit represented by the following general formula (1);

(wherein  $R^1$  represents a hydrogen atom, an alkyl group of a carbon number of 1 to 10, an alkoxy group, an alkanoyl group, a carbamoyl group or a cyano group, and  $R^2$  represents a phenyl group optionally having a substituent or a pyridyl group optionally having a substituent) and having a number average molecular weight in a range of 500 to 1000000.

2. The polyaminopyridines according to claim 1, wherein  $R^1$  is a hydrogen atom, and  $R^2$  is a phenyl group or a pyridyl group in the general formula (1).

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3. Polyaminopyridines having a repetition structural unit represented by the following general formula (1);

(wherein R<sup>1</sup> represents a hydrogen atom, an alkyl group of a carbon number of 1 to 10, an alkoxy group, an alkanoyl group, a carbamoyl group or a cyano group, and R<sup>2</sup> represents a pyrimidyl group optionally having a substituent, a naphthyl group optionally having a substituent or a quinolyl group optionally having a substituent)

and having a number average molecular weight in a range of 500 to 1000000.

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4. The polyaminopyridines according to claim 3, wherein  $R^1$  is a hydrogen atom, and  $R^2$  is a pyrimidyl group, a naphthyl group or a quinolyl group in the general formula (1).

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5. Polyaminopyridines having a repetition structural unit represented by the following general formula (1);

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(wherein R<sup>1</sup> represents a hydrogen atom, an alkyl group of a carbon number of 1 to 10, an alkoxy group, an alkanoyl group, a carbamoyl group or a cyano group, and R<sup>2</sup> represents an anthryl group optionally having a substituent, or a pyrenyl group optionally having a substituent) and having a number average molecular weight in a range of 500 to 1000000.

- 6. The polyaminopyridines according to claim 5, wherein  $R^1$  is a hydrogen atom, and  $R^2$  is an anthryl group or a pyrinyl group in a general formula (1).
- 7. A process for preparing polyaminopyridines having a repetition structural unit represented by the following general formula (1);

(wherein R<sup>1</sup> represents a hydrogen atom, an alkyl group of a carbon number of 1 to 10, and an alkoxy group, an alkanoyl group, a carbamoyl group or a cyano group, and R<sup>2</sup> represents a phenyl group optionally having a substituent or a pyridyl group optionally having a substituent) and having a number average molecular weight in a range of 500 to 1000000, which comprises reacting 2,6-dihologenopyridines represented by the following general formula (2);

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10 (wherein  $R^1$  is as defined in the general formula (1), and X represents a halogen atom)

and an aromatic amine compound represented by the following general formula (3);

$$R^2 - NH_2$$
 (3)

15 (wherein  $R^2$  is as defined in the general formula (1))

using a palladium compound and a phosphine compound as a catalyst in the presence of a base.

8. A process for preparing polyaminopyridines having a repetition structural unit represented by the following general formula (1);

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(wherein R<sup>1</sup> represents a hydrogen atom, an alkyl group of a carbon number of 1 to 10, an alkoxy group, an alkanoyl group, a carbamoyl group or a cyano group, and R<sup>2</sup> represents a pyrimidyl group optionally having a substituent, a naphthyl group optionally having a substituent or a quinolyl group optionally having a substituent)

and having a number average molecular weight in a range of
500 to 1000000, which comprises reacting 2,6dihalogenopyridines represented by the following general
formula (2);

$$X \longrightarrow X$$
 (2)

(wherein  $R^1$  is as defined in the general formula (1), and X represents a halogen atom)

and an aromatic amine compound represented by the general formula (3);

 $R^2-NH_2 \qquad (3)$ 

(wherein  $R^2$  is as defined in the general formula (1)) using a palladium compound and a phosphine compound as a catalyst in the presence of a base.

9. A process for preparing polyaminopyridines having a repetition structural unit represented by the following general formula (1);

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(wherein  $R^1$  represents a hydrogen atom, an alkyl group of a carbon number of 1 to 10, an alkoxy group, an alkanoyl group, a carbamoyl group or a cyano group, and  $R^2$ 

represents an anthryl group optionally having a substituent or a pyrenyl group optionally having a substituent) and having a number average molecular weight in a range of 500 to 1000000, which comprises reacting 2,6-

dihalogenopyridines represented by the following general formula (2);

$$X \longrightarrow X$$
 (2)

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(wherein  $R^1$  is as defined in the general formula (1), and X represents a halogen atom)

and an aromatic amine compound represented by the following general formula (3);

$$R^2-NH_2$$
 (3)

(wherein  $R^2$  is as defined in the general formula (1)) using a palladium compound and a phosphine compound as a catalyst in the presence of a base.